CDF Operations Report

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25-AUG-2003

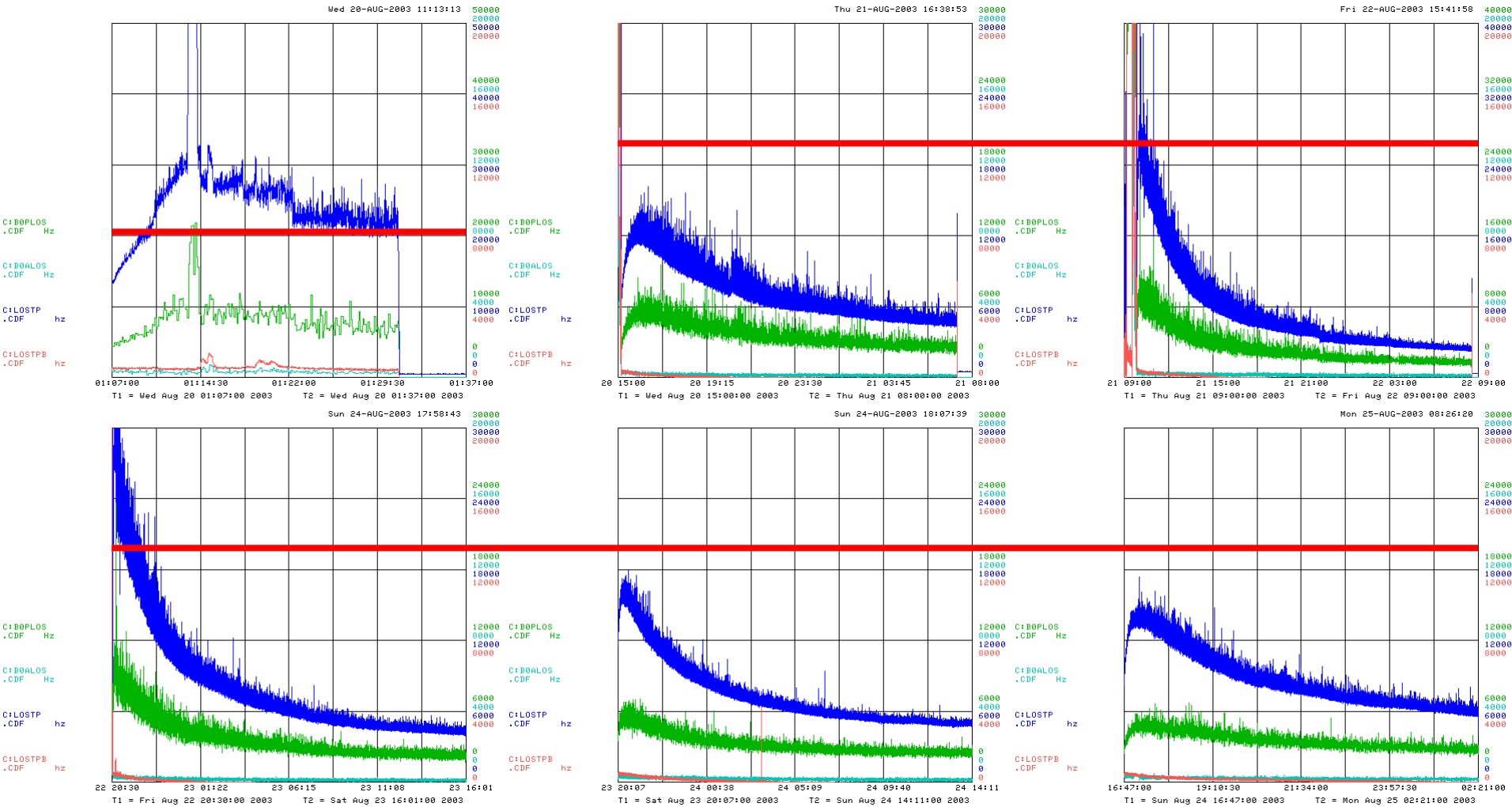
All Experimenters' Meeting

Stores summary

Date	Store	Losses	Inst Lum (initial)	Int Lum (delivered)	Lum to tape (ε)	Si Phys Lum (ε)
Mo 8/18	2923	high	42.2e30	608	532 (87.6%)	532 (87.6%)
We 8/20	2928	high	44.4e30	65	23 (35.3%)	0 (0.0%)
We 8/20	2932	OK	28.3e30	984	931 (94.6%)	931 (94.6%)
Th 8/21	2934	high	42.4e30	1601	1204 (75.2%)	991 (61.9%)
Fr 8/22	2937	high	43.9e30	1528	1078 (70.5%)	1044 (68.3%)
Sa 8/23	2939	OK	43.9e30	1587	1424 (89.7%)	1341 (84.5%)
Su 8/24	2941	OK	42.2e30	991	915 (92.7%)	915 (92.7%)
Total				7.4 pb^{-1}	6.1 pb^{-1} (82.9%)	5.8 pb^{-1} (78.1%)

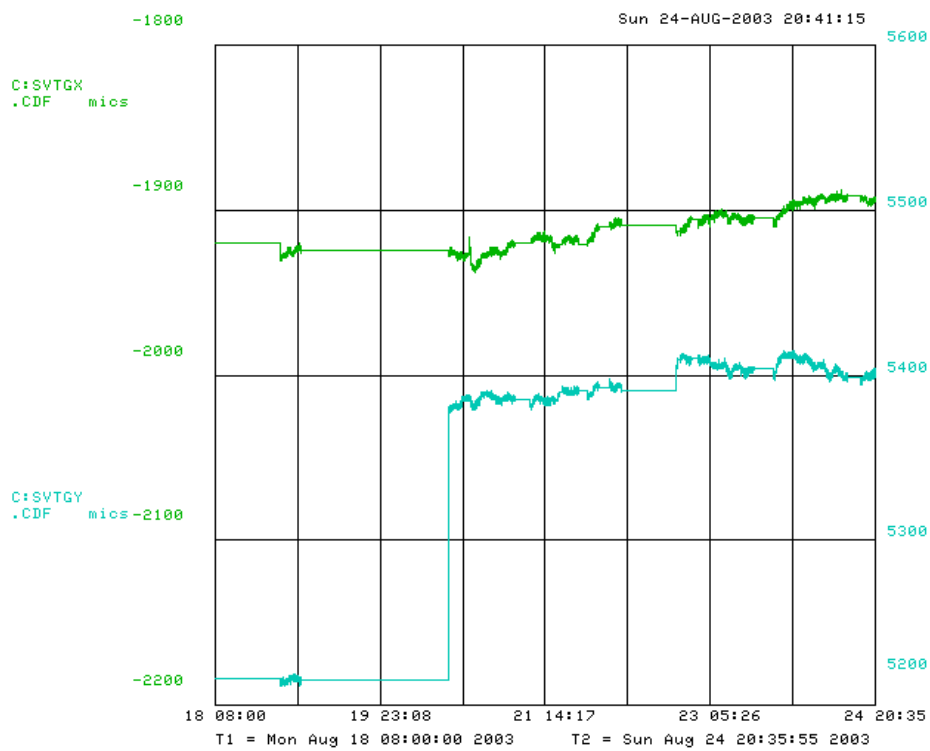
About 0.4 pb^{-1} of delivered lumi came with losses above the “turn on silicon” threshold

A look at losses



Beam position

- In between stores 2928 and 2932, beam moved +200 microns in y
- Total y offset is 5.4 mm --- near the edge of what we can tolerate with our present patterns
- No reason to attack this now, given all that's going to happen during the shutdown



Other down time sources

- Low efficiencies of stores 2934 and 2937 were not fully attributable to high p losses…
- "Reformatter errors" (both stores)
  - Signals corrupted data
  - Historically has been due to problems with silicon DAQ
  - Real culprit turned out to be a new L2 trigger component under test
- Online server crash (store 2934)
- Special runs (both stores)
  - Piling up since planned end-of-stores are not so common these days
  - Did several in middle of store 2934 after RF station lost
    - Just one RFSUM ripple away from aborting the store….
  - Optimizing B track triggers, calorimeter response studies, new and improved Z -> bb, Higgs multijet, SUSY dilepton triggers…

Conclusions

- Took 5.8 pb^{-1} of physics with silicon out of 7.4 pb^{-1} delivered this week (78%)
- I have since been fired from the CDF operations department
  - OK, not really --- we all knew this was my last week
- Beginning-of-store losses were OK over the weekend, but came back to haunt us today
  - We hope this will be understood soon
- Congratulations to BD for reaching 225 pb^{-1}
  - Looking forward to spending some time analyzing these data! (~250 pb^{-1} on tape since the beginning of Run II)